

ABSTRACT

Fiber-based products and adhesives comprising the fiber-based products. The fiber-based products comprise carboxymethyl cellulose, carboxymethylated hemicellulose and carboxymethylated starch. The fiber-based product is obtained by simultaneously performing alkali extraction of hydrocolloid from the fiber and carboxymethylation, with a carboxymethylating agent, thereby converting extracted cellulose to carboxymethyl cellulose and also carboxymethylating some extracted hemicellulose, starch, and hemicellulose-cellulose complexes.